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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/609,822	07/03/2000	Jin-gyo Seo	1293.1076D/STB	2532

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WASHINGTON, DC 20005

EXAMINER
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BATTAGLIA, MICHAEL V

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/609,822	Applicant(s) SEO ET AL.	
	Examiner Michael V. Battaglia	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-26,28-46 and 48-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24,33,38,40,42 and 55-58 is/are allowed.
- 6) ☒ Claim(s) 19,20,25,26,28-32,34,35,40,41,43-46,48-50 and 53 is/are rejected.
- 7) ☒ Claim(s) 39,51 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/359,128.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The indicated allowability of claims 30, 32, 39, 51 and 52 is withdrawn in view of the newly referenced Seo et al (hereafter Seo) (US 6,631,110). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 19, 20, 25, 26, 28, 29, 31, 34, 35, 40, 41, 43-46, 48-50 and 53 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 19, 29, 31, 34, 35, 43 and 48 have been amended to limit the different magnitudes stored in the grouping tables to be add “potential magnitudes.” This limitation was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The originally filed specification does not even contain the word “potential.”

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19, 20, 25, 26, 28, 29, 31, 34, 35, 40, 41, 48-50 and 53 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which applicant regards as the invention. The limitation “potential magnitudes” in claims 19, 29, 31, 34, 35, 43 and 48 renders the scope of the claims unclear because it is unclear whether Applicant is attempting to claim a voltage (i.e. “potential magnitude”) or values that the magnitude could possibly (i.e. potentially) be.

### *Double Patenting*

3. Claims 29, 30, 32 and 48 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 27-29 of U.S. Patent No. 6,631,110 (hereafter C27-C29 respectively). Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons.

In regard to claim 29, C28 discloses a recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising: a discriminator (inherent to perform the “discriminating” function of Col. 10, lines 4-6) to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark; a generator (inherent to perform the “generating” of Col. 10, lines 7-15) to control generation of a write pulse waveform in which the present mark comprises a first pulse and a last pulse formed in accordance with one or more grouping tables having width data of first and/or last pulses for the present mark with the write pulse waveform varying according to potential magnitudes of the present mark of the input data and potential magnitudes of the leading and/or trailing spaces, and a driver (inherent to “drive” and for the “converting” as described in Col. 10, lines 15-18) to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform, wherein the generator generates pulse

width data by varying a falling edge of the first pulse of the write pulse in accordance with the magnitude of the leading space and the magnitude of the present mark (Col. 10, lines 21-25).

In regard to claim 30, C28 discloses a recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising: a discriminator (inherent to perform the “discriminating” function of Col. 10, lines 4-6) to discriminate a magnitude of a present mark of input data and magnitudes of leading and/or trailing spaces of the present mark; a generator to control generation of a write pulse waveform in accordance with one or more grouping tables having width data of first and/or last pulses for the write pulse waveform according to the magnitude of the present mark of the input data and the magnitudes of the leading and/or trailing spaces; and a driver (inherent to “drive” as described in Col. 10, lines 15-18) to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform, wherein the generator generates pulse width data by varying a rising edge of the last pulse of the write pulse in accordance with the magnitude of the trailing space and the magnitude of the present mark (Col. 10, lines 21-25).

In regard to claim 32, C28 discloses a recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising: a generator (inherent to perform the “generating” of Col. 10, lines 7-15 and 21-29) to generate an adaptive write pulse, by varying a rising edge of a first pulse of the write pulse and a second pulse of the write pulse in accordance with a magnitude of a space adjacent a present mark and a magnitude of the present mark, based on at least one table storing width data of the first and/or second pulses in a grouping format in which the magnitudes of the present mark and the adjacent space are grouped into corresponding

pulse groups grouped according to magnitudes; and a driver (inherent to “drive” as described in Col. 10, lines 15-18) to drive the light source according to the adaptive write pulse.

In regard to claim 48, C28 discloses a recording and/or reproducing apparatus recording and/or reproducing data on a recording medium, comprising: a discriminator (inherent to perform the “generating” of Col. 10, lines 7-15 and 21-29) to discriminate a magnitude of a present mark of input data and a magnitude of a space adjacent the present mark; a generator to control generation of a write pulse waveform in which the present mark is formed using first and last pulses determined in accordance with one or more grouping tables and the discriminated magnitudes of the present mark and the adjacent space, the generator comprising a memory in which the pulse width data of the first and/or last pulses for the write pulse waveform are stored, the one or more grouping tables storing pulse width data of first and/or last pulses for the write pulse waveform by grouping the potential magnitudes of the present mark and the space adjacent the present mark, into a plurality of pulse groups grouped according to the magnitudes; and a driver (inherent to “drive” as described in Col. 10, lines 15-18) to drive a light source by converting the write pulse waveform into a current signal in accordance with driving power levels for the write pulse waveform controlled by the generator.

***Allowable Subject Matter***

4. Claims 19, 20, 25, 26, 28, 31, 34, 35, 40, 41, 43-46 and 53 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. Claims 19, 20, 25, 26, 28, 31, 34, 35, 40, 41, 43-46 and 53 contain

allowable subject matter for the reasons specified in the previous Office actions and in Applicant's Remarks filed January 17, 2006.

5. Claims 49 and 50 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claims 49 and 50 contain allowable subject matter for the reasons specified in Applicant's Remarks filed January 17, 2006.

6. Claims 39, 51 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 39, 51 and 52 contain allowable subject matter for the reasons specified in the previous Office actions and in Applicant's Remarks filed January 17, 2006.

7. Claims 21-24, 33, 38, 40, 42 and 55-58 are allowable over the prior art of record for the reasons specified in the previous Office actions and in Applicant's Remarks filed January 17, 2006.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Battaglia whose telephone number is (571) 272-7568. The examiner can normally be reached on M-F, 8:30-5:00.

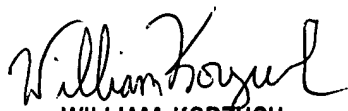
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2627

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Battaglia



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